



THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Dhruva, et al. Attorney Docket: 60.1489
Serial No.: 10/644,284 Art Unit: 2856
Date Filed: 8/20/2003 Examiner: Jackson, Andre K.
Invention: Determining the Pressure of Formation Fluid
in Earth Formation Surrounding a Borehole

March 9, 2006

Director for Patents,
P.O. Box 1450
Alexandria, Virginia 22313-1450

CERTIFICATE OF MAILING (37 CFR 1.8a)

I hereby certify that this paper, along with any other papers referred to as being attached or enclosed, is being deposited on the date shown below with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Director for Patents, Alexandria, Virginia 22313-1450.

J. L. Lee

March 9, 2006

John L. Lee

Documents included in this Mailing:

- (X) Request For Continuing Examination (RCE) (pages 1-6)
- (X) Check in amount \$1,240.

REQUEST FOR CONTINUING EXAMINATION (RCE)

Dear Sir:

1. Request for RCE and Reason for Filing

This communication is a request for continuing examination.

03/15/2006 NNGUYEN1 00000054 10644284

01 FC:1801
02 FC:1252

790.00 DP
450.00 DP

In the Office Action issued 5/2/05, claims 1, 2, 7, 10-13 and 16 were rejected and claims 3-6, 8, 9, 14, 15 and 17-23 were objected to. Amendment A was filed on 8/1/05 with amendments to the claims to overcome objections. In the Office Action issued 10/19/05, claims 1, 2, 7, 10-13 and 16 were again rejected, and the Office Action was made Final.

Response A was filed on 12/16/05 with arguments for allowance. In the Advisory Action issued 1/20/06 the Examiner maintained his rejection of claims 1 and 2.

The Office Actions issued 5/2/05 and 10/19/05 each contain an obviousness rejection, under 35 USC 103(a) of sole independent method claim 1 and of sole independent apparatus claim 12. Applicants believe that both of these obviousness rejections are based on a defective *prima facie* argument. The Advisory Action of 1/20/06 adds nothing to eliminate the defects. So Applicants believe that the Examiner's rejection of claims 1 and 12 should be withdrawn.

2. Status of the Claims

All claims stand rejected, including the sole independent method claim 1 and the sole independent apparatus claim 12. Pending claims 3-6, 8-9, 14-15, and 17-23 "would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims". (See Office Action issued 5/2/05, and amendments entered in Amendment A on 8/1/05 to overcome rejections under 35 U.S.C. 112, 2nd paragraph).

3. Examiner's *Prima Facie* Arguments for Obviousness of Claims 1 and 12

The Examiner's *prima facie* argument in the Office Actions of 5/2/05 and 10/19/05, for rejection of independent claims 1 and 12 under 35 USC 103(a), is as follows.

Following the Office Action of 10/19/05, claims 1 and 12 stand "rejected under 35 U.S.C. 103(a) as being obvious over Proett et al. (5,644,076) in view of Proett et al. (5,703,286)". (Herein below these references will be referred to as "Proett et al. ('076)" and "Proett et al. ('286)"). The *prima facie* argument of 10/19/05 is essentially the same as that of 5/2/05.

In the Office Action of 10/19/05, the Examiner states that Proett et al. ('076) disclose providing a tool defining a probe and a variable-volume pretest cavity fluid coupled to the probe pressing the probe into contact with the mud cake (218; Figure 2B); expanding the volume of the cavity in sufficient amount to produce a break in the mud cake seal during a draw-down period (Column 3). Proett et al. ('076) do not disclose holding constant the volume of the cavity immediately after detecting the occurrence of the break in the mud cake seal for a sufficient build-up period to establish pressure equilibrium between cavity fluid and formation fluid; measuring pressure in the cavity and setting formation fluid pressure equal to the measured pressure.

The Examiner further states that Proett et al. ('286) disclose holding constant the volume of the cavity immediately after detecting the occurrence of the break in the mud cake seal for a sufficient build-up period to establish pressure equilibrium between cavity fluid and formation fluid; measuring pressure in the cavity and setting formation fluid pressure equal to the measured pressure" (Column 9, lines 1-10).

The Examiner further states that

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Proett et al. ('076) to include "holding constant the volume of the cavity immediately after detecting the occurrence of the break in the mud cake seal for a sufficient build-up period to establish pressure equilibrium between cavity fluid and formation fluid; measuring pressure in the cavity and setting formation fluid pressure equal to the measured pressure.

The Examiner concludes with

By adding this feature the apparatus would be able to accurately perform pressure tests on various formations.

4. Applicant's Comments on Examiner's *Prima Facie* Argument for Obviousness

Applicants believe that the Examiner's rejection of claims 1 and 12 under 35 USC 103 is based on a defective *prima facie* argument for the following reasons.

The Examiner cites just two references: "Proett et al. ('076)" and "Proett et al. ('286)". The Examiner concedes that Proett et al. ('076) do not disclose the last three steps of claim 1, "holding constant the volume of the cavity immediately after detecting the occurrence of the break in the mud cake seal for a sufficient build-up period to establish pressure equilibrium between cavity fluid and formation fluid; measuring pressure in the cavity(;) and setting formation fluid pressure equal to the measured pressure", but Examiner asserts that Proett et al. ('286) do disclose "this process" (the last three steps of claim 1) at column 9, lines 1-10.

Applicants note that the full paragraph at column 9, lines 1-10, recites:

During the build-up phase, the reduced pressure in the tester 10 in the vicinity of the probe 34 continues to draw connate fluids or mud filtrate from the formation 28 into the tester 10 through the probe 34. As these fluids enter and fill the tester 10, the pressure detected by the sensor 50, as shown by the curve portion 106, rises to P_{bu} which approaches equilibrium with the formation pressure. This final buildup pressure P_{bu} is frequently referred to as the "sandface pressure." It is usually assumed that the sandface pressure is close to the formation pressure. This equilibrium marks the close of the buildup phase of the test. When the formation tester 10 is disengaged from the borehole wall at t_{bu} , the detected formation pressure increases rapidly from P_{bu} , as shown by the curve portion 108, due to the removal of pressure applied by the isolation packer 36.

Applicants further note that Proett et al. ('286), and in this paragraph in particular, do not disclose or suggest the fifth step of claim 1 (the first step of the above-mentioned "last three steps"), "holding constant the volume of the cavity immediately after detecting the occurrence of the break in the mud cake seal". This step includes a time limitation. In a preferred embodiment it requires stopping the piston "immediately after detecting the occurrence of the break in the mud cake seal". Specifically, Proett et al. ('286) do not disclose or suggest any time limitation on stopping the piston. The Examiner may not ignore

limitations in the claims. Thus, Proett et al. ('286) do not disclose or suggest that which is lacking in Proett et al. ('076).

Furthermore, the incentives and benefits of the Applicants' time limitation are disclosed in the specification as filed. See paragraphs [0008], [0011], [0018], [0040] and [0051]-[0052], and FIGS. 5 and 6. In this case, the only suggestion for the claimed combination is in the Applicants' disclosure. The Examiner may not use the Applicants' disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings in the prior art.

Accordingly, the Examiner's *prima facie* argument, based on the combination of Proett et al. ('076) and Proett et al. ('286), the Examiner's combination lacking at least one step, and lacking teaching, suggestion or incentive drawn from the prior art, is incomplete and defective.

Applicants note that the Advisory Action recites:

The request for reconsideration has been considered but does NOT place the application in condition for allowance because: Regarding claims 1 and 2, it is maintained that the references do teach detecting a break in the mudcake seal of a borehole including measuring and detecting an abrupt change in pressure, as evidenced by Proet (5644076) (col. 3, lines 20-30; and Fig. 3).

This Advisory Action adds nothing to eliminate the defects in the Examiner's *prima facie* argument because it makes no mention of the fifth step of claim 1, it makes no mention of control means, element c) of claim 12, and it lacks support of teaching, suggestion or incentive drawn from the prior art. Accordingly, Applicants respectfully request that the rejection of claims 1 and 12 under 35 U.S.C. 103(a) be withdrawn because the rejection is based on a defective *prima facie* argument.

5. Applicants Comments on Obviousness Rejection of Claims 2, 7, 9-11, 13 and 16

Claims 2, 7 and 9 depend from claim 1. Therefore claims 2, 7 and 9 should be passed to allowance when claim 1 is passed to allowance. Claim 10 depends from claim 9. Therefore claim 10 should be passed to allowance when claim 9 is passed to allowance. Claim 11 depends from claim 10.

Therefore claim 11 should be passed to allowance when claim 10 is passed to allowance. Claims 13 and 16 depend from claim 12. Therefore claims 13 and 16 should be passed to allowance when claim 12 is passed to allowance.

Applicants respectfully request that claims 1-23 be passed to allowance.

SUMMARY

It is believed that the application is in condition for allowance.

Reconsideration of the application and issuance of a notice of allowance is respectfully requested. Please charge deposit account no. 120914 in amount \$790.00 for Request for Continued Examination.

It is believed that two extensions of time are required. Please charge deposit account no. 120914 in amount \$450.00. If additional fees are required for the timely consideration of this application, please charge deposit account no. 120914.

Respectfully submitted,



John L. Lee
Registration No. 33,942
Lee Patent Services
48 Summer Street
Stoneham, MA 02180-1925
Tel.: 781-438-8112
FAX: 781-438-8115

MAILING ADDRESS

Schlumberger Doll-Research
36 Old Quarry Road
Ridgefield, CT 06877-41089
203-431-5505